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CENTRAL INTELLIGENCE AGENCY

4 November 1948

INTELLIGENCE MEMORANDUM NO. 80

SUBJECT: Reply to Request for Certain Information on Precision Bearings

1. Soviet and Satellite Supply Position.

Considerable evidence has been obtained by CIA to indicate quite conclusively that the USSR and Satellites are extremely short of precision bell and roller bearings required to maintain and strengthen the industrial potential of Eastern Europe. Soviet facilities for the production of bearings, despite acquisition of some German facilities, are entirely inadequate to meet the country's current needs. Vigorous efforts are being made by the USSR to increase their imports of bearings and to buy complete production plants from Western countries.

2. Strategic Importance of Precision Bearings.

The contribution which precision bearings make to industrial production is very great: (a) use of precision bearings speeds up machine production by several fold; (b) many types of precision instruments and machines cannot function at all without precision bearings; and (c) wear and tear on machinery is very greatly reduced, thereby increasing substantially the life of machinery and reducing the frequency and extent of repair and maintenance. From the technical standpoint, precision bearings rank among those top items of first importance to an industrial economy.

The strategic importance of precision bearings to the USSR and the Soviet supply position were recognized from the beginning by United States technical experts as indicated by the top classification given those items on the lists prepared for export control in the spring of 1945. Although precision bearings now appear on the Class I B list, this lower classification does not represent any change in opinion of the technical experts as to their relative importance to the USSR economy and war potential. Overriding considerations, namely, the problem of ECA in obtaining parallel action (i.e. complete embargo of shipments to Eastern Europe) by such countries as Sweden and Switzerland, seemed to compel the change in classification with the view to exploring the problem further to determine how shipments of bearings to Eastern Europe can be reduced. Machinery for the production of precision bearings, however, remains on the Class I A list.

SEE REVERSE FOR DECLASSIFICATION ACTION

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3. Significance of Quantities to Eastern Europe.

In the light of the high strategic importance of precision bearings, the short supply situation in Eastern Europe, and the recommendation of technical experts that they be given a Class I A rating, even small quantities of those items may be considered significant when shipped to the Soviet bloc. Because of the nature of the Soviet economies and the efforts being made to strengthen their industrial potential for war production, imports of precision bearings even for replacement purposes would likely be used in instruments of war or machinery specifically designed for producing war material. It can be said, therefore, that even small quantities of precision bearings would increase the war potential of Eastern Europe and would be inimicable to US security interests.

4. <u>Definition of Precision Bearings</u>.

The definition of precision bearings as used by United States technical experts is based upon the principles set up by the Anti-Friction Bearing Manufacturers Association and upon the technical categories established by the International Standards Association and SMF. These principles and categories are well known and used by foreign buyers and manufacturers. It is not possible, according to the experts, to formulate a short working definition for the layman; use of the recognized principles and categories indicated above are recommended for export control purposes.

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Intelligence MEMORANDUM

No. 80

SUBJECT: Reply to request for certain information on precision bearings.

. Soviet and Satellite Supply Position

Considerable evidence has been obtained by CIA to indicate quite conclusively that the USSR and Satellites are extremely short of precision ball and roller bearings required to maintain and strengthen the industrial potential of Eastern Europe. Soviet facilities for the production of bearings, despite acquisition of some German facilities, are entirely inadequate to meet the country's current needs. Vigorous efforts are being made by the USSR to increase their imports of bearings and to buy complete production plants from Western countries.

> Strategic Importance of Precision Bearings

The contribution which precision bearings make to industrial production is indeed very great: In the first place, use of precision bearings speeds up machine production by several fold;

In the second place, many types of precision instruments and machines cannot function at all without precision bearings; In and (3) the third-place, wear and tear on machinery is very greatly reduced, thereby increasing substantially the life of machinery and reducing the frequency and extent of repair and maintenance. From the technical standpoint, precision bearings rank among those top items of first importance to an industrial economy.

The strategic importance of precision bearings to the USSR and the Soviet supply position were recognized from the beginning by United States technical experts as indicated by the top classification given those items on the lists prepared for export control in the spring of 1948. Although precision bearings now appear on the Class I B list, this lower classification does not represent any change in opinion of the technical experts as to their relative importance to the USSR economy and war potential. Overriding considerations, namely, the problem of ECA in obtaining parallel action (i.e. complete embargo of shipments to Eastern Europe) by such countries as Sweden and Switzerland, seemed to compel the change in classification with the view to exploring the problem further to determine how shipments of bearings to Eastern Europe can be reduced. Machinery for the production of precision bearings, however, remains on the Class I A list.

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- 2 -

2. Significance of Quantities to Eastern Europe

In the light of the high strategic importance of precision bearings, the short supply situation in Eastern Europe, and the recommendation of technical experts that they be given a Class I A rating, even small quantities of those items may be considered significant when shipped to the Soviet bloc. If, however, the objective of expert control is to limit shipments of precision bearings to the Soviet bloc to a level that would permit normal replacements for maintenance of a peacetime economy, yearly shipments should be restricted to quantities not exceeding the average annual experts to those countries during the period 1936-38. Experts to the Soviet bloc in excess of those quantities may be presumed to contribute to an expension of the Eastern European war potential above the prewar levels.

A. Definition of Precision Bearings

The definition of precision bearings as used by United States technical experts is based upon the principles set up by the Anti-Friction Bearing Manufacturers Association and upon the technical categories established by the International Standards Association and SKF. These principles and categories are well known and used by foreign buyers and manufacturers. It is not possible, according to the experts, to formulate a short working definition for the layman; use of the recognized principles and categories indicated above are recommended for export control purposes.

